

8 MAR 1971

MEMORANDUM FOR: Chairman, Records Management Board (DD/S)

SUBJECT : Storage of Backup ADP Files and Programs

1. The Information Processing Board is endeavoring to strengthen the Agency's backup protection in event of fire or other disaster in CIA's computer centers.

2. One of the areas of concern is the safe storage of duplicates of critical computer files and programs. In a recent IP Board meeting, the seeming relationship between this area of concern and the vital materials portion of the records management program was surfaced--along with the thought that the Records Management Board should perhaps assume responsibility for recommending policy and procedures for secure storage of such backup files and programs.

3. It would be helpful if your Board would consider what the proper role of records management is in this regard. Specifically, what support to the Agency's computer centers for safe storage (and retrieval for update) could the records management program provide?

4. Vital materials, of course, are only one part of the overall records management program. We also need to look at ADP files and programs in the broader context of the total records management programs of the Agency to ensure that proper consideration is given to their value as record material and to scheduling their retention and ultimate disposal.



5. Please consider this memorandum a request that the Records Management Board officially address these topics and advise me of the outcome.

6. Mr. [REDACTED] of my staff [REDACTED] prepared the attached paper. Please call on Mr. [REDACTED] if you desire further background and detail.

[REDACTED]  
Chairman, Information Processing Board

Attachment:  
As stated

SECRET

GENERAL RECORDS SCHEDULE 20

DATA AUTOMATION PROGRAM RECORDS

This schedule covers machine readable records recorded on erasable media, related documentation required for their servicing, and files related to the ADP operations, procurement and management function.

This schedule covers the principal categories of machine readable and supporting records that are common to several or all agencies. For purposes of this schedule, they have been divided into four categories which roughly correspond to the typical organization structure found in most ADP installations and their parent organizations.

Data automation planning and operational records are normally those created during the life cycle of individual computer models. They deal with planning, managing, procurement, selection, utilization and accountability for ADP systems and supporting activities.

Documentation required for servicing machine readable records covers the organized series of descriptive documents required to develop, operate and maintain ADP systems. These include system specifications, test data and procedures, file and user documentation and the various installation procedures and standards used in daily operations.

The term magnetic media refers to all devices which store data in an erasable mode. At present, only magnetic media are commonly used for such purposes. However, other technologies may in the future have the same characteristics now present on magnetic tape. These are non-volatility combined with the characteristic of easy reusability.

Since magnetic media can be overwritten, a variety of protective devices and techniques have been developed over the years to insure that no inadvertent erasure of records takes place. The earliest technique is still in use and consists of a write protection ring inserted or left out of a reel of tape. This is a mechanical interlock device and is now a standard technique. With the development of operating systems, additional safeguards have been developed. This technique is software oriented and consists of writing file identification and expiration date fields on a label record at the beginning of each reel of tape. Other magnetic media such as disks depend solely on such software protection.

Most ADP installations use machine readable media other than magnetic for a variety of roles and functions. Part IV of this schedule covers the most common functions of card decks. For the most part, these are of temporary or backup use in developing software. However, punched cards in many cases are used as documents themselves. Typical examples are checks, U.S. savings bonds, some requisition forms, etc. In these cases, the overriding criterion is the fact that the card is a document and the retention period should be determined on the basis of other record schedules developed specifically for that function.

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It follows that all tape expiration dates must be developed at the time of the original system design. Part III of this schedule represents current good practice in this area.

Unlike paperwork systems, most computer applications create many copies of a given record between the point of original entry of the system until the record emerges on the output side as part of a file, a total, or another transaction to another system. Prudent management of resources requires that the bulk of magnetic tape copies should be erased as soon as possible when they are no longer required for operational or backup purposes.

However, some files of records have values above and beyond their convenience value and should be retained for longer periods of time. For example, some transaction tapes may have value in furnishing audit trails. Since many systems are becoming more automated when newer ADP equipment is procured, certain manual controls may be dropped. Since many applications are dynamic and change frequently due to corresponding changes in legislation or other factors, programs which are no longer used may have to be kept for site audit records.

A variety of criteria enter into the appraisal of ADP records and their associated documentation. Part V of this schedule is intended to be a guideline for records officers, auditors and archivists in determining which tapes might profitably be retained for these other purposes.

DRAFT FEBRUARY 1971

## DATA AUTOMATION PROGRAM RECORDS - GENERAL RECORDS SCHEDULE NO. 20

## Part I Data Automation Planning and Operational Records

Covering documentation relating to objectives, concepts, policies, and plans providing overall aspects of data automation data needs and systems design of management supporting systems and operational supporting systems, including equipment selection and statistics.

File Designation		Consisting of	Which are	Then
1	Planning documents	master plan, feasibility studies with associated charts and diagrams, supporting data that reflect on the characteristics of the data automation activity	graphic, narrative and tabular information relating to the present and/or planned ADP composition and requirements of the data automation activity	disposal not authorized
2	Program management	development of plans, policy, and procedures governing the conversion to electrical machine operations and the supervision, control, coordination, and operation of the mechanization program	maintained at policy determination level	disposal not authorized
3	Hardware selection	specifications for hardware, agency requirements, and choice of major peripheral equipment	used as a guide to the establishment of a new selection criteria	dispose after 5 years
4	Standardization	data elements and codes, standardization requests and justification for all data systems	promulgated Federal or national	dispose when superseded or obsolete
5			other standards eg. developed by agency	review for disposal after 5 years

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File Designation		Consisting of	Which are	Then
6	Utilization and Maintenance	forms or cards which equipment operators complete relative to machine use, nonuse, or maintenance	used for daily management of operations	dispose after 1 year
7		daily detail cards, intermediate summary decks, related magnetic tape files and machine listings	used for daily management of operations	dispose after 90 days
8		monthly summary of cost and utilization reports	card decks, magnetic tape files and machine listings	dispose after 1 year
9	Accountability	documents concerning the management of ADPE equipment	original records maintained at data processing installation	dispose 2 years following the date equipment is discontinued
10		requirements for cards, paper and magnetic tape reels and inventory of ADPE supplies		dispose after 1 year
11		contractor's invoices for rental and other charges incurred for use of ADPE		dispose after 3 years
12	Magnetic tape library control records	library transaction records	card decks, transaction slips, magnetic tape files	dispose when the 4th update cycle is created
13			machine listings	dispose after 1 year

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Part II Documentation Required for Servicing Machine Readable Records

Documentation covering the organized series of descriptive documents relating to all aspects of system development and operation. These include system planning documents, ADP systems specifications, application program manuals, systems operating instructions and various management aids.

	File Designation	Consisting of	Which are	Then
1	specific data systems planning records	documents containing definition of the system including the system objectives, system establishment request, authorizing directives, source data, detailed studies reflecting advantages and disadvantages of alternate solutions; equipment requirements, tangible benefits; output requirements and schedule for completion	at departmental level headquarters	Disposal not authorized review after 5 years
2			supplementary files at ADP unit level	destroy 5 years after final action
3	system test documentation	system test specifications; test runs; machine listings of test data, test results	approved system	destroy 1 year after discontinuance of the system
4			disapproved proposed system	destroy 1 year after final action
5	systems design specifications	documents which contain operating procedures for implementation of a specific data system, including policies, instructions, details of computer technique, logic charts, input/output document flow data	for systems for which related magnetic tape data is authorized for blanking	dispose of at the time magnetic tape reels are blanked
6			for systems for which the related magnetic tape data is not authorized for blanking	retain with the related magnetic tape

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File Designation		Consisting of	Which are	Then
7	File(s) specifications	narrative description of the source and functional characteristics of the file(s), a definition of the content of each record in terms of the relative position name, length, and type of each data element in a field (run layout) explanation of the coding system and a cross reference code manual of every code used together with all their values	for system the related magnetic tape data is authorized for blanking	dispose of when all the related magnetic tape reels are blanked
8			for system the related magnetic tape data is not authorized for blanking	retain with the related magnetic tape
9	input specifications	detailed description of each transaction that generated some activity in the system in the form they appear at the time they enter the computer system; identification title, recording media, purpose, frequency, volume and source; detailed description of the contents of each input to the basic record file and a graphic illustration of each.	for system the related magnetic tape data is authorized for blanking	dispose of when all the related magnetic tape reels are blanked
10			for system the related magnetic tape data is not authorized for blanking	retain with the related magnetic tape

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	File Designation	Consisting of	Which are	Then
11	Output (Report Forms) specifications	detailed description of products of the system that are to be used outside the computer center	a listing of the outputs by sequence, name, media, purpose, frequency, volume and distribution; a detailed record description; samples of output in the form of layouts or copies, keyed to names numbers in the output listings	dispose on termination of system by either obsolescence, update or discontinuance
12	Application program manual	documents reflecting the latest information for a general description of the function, use and methodology of the program	a description of input, files, and output; source and object code listings, flow diagrams showing the logic of the program; description of instructive output messages; coding information; test plan; and program test and operating instructions	dispose on termination of system by either obsolescence, update or discontinuance
13	User guides	information used in training or explaining overall system	handbooks, guides to data availability procedures for querying files	retain with systems specification

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	File Designation	Consisting of	Which are	Then
14	System operating procedures	user oriented instructions to prepare input data and for control of output reports and interpretation, and for processing work for the computer	for systems the related magnetic tape data is authorized for disposition	Dispose at the time magnetic tape reels are blanked
15			for systems the related magnetic tape data is to be retained	retain with file (systems) specifications
16	Report	printed final report containing the statistical tabulation and an analysis of the findings of a study or survey including a narrative description of methodology employed	for system the related magnetic tape data is to be retained	retain 1 copy of the printed report with related file specification  same deposition as file specification - Item 7-8

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Part III Magnetic Media

The term "magnetic media" refers to tape (analog, digital), drums, disks, disk packs, data cells, and other devices which store data magnetically

	File designation	Consisting of	Which are	Then
1	Scratch tape (blank tape)	temporary magnetic tape used by the console operators or tape handlers to facilitate general computer runs such as sort and merge runs	not included in a tape library control or files whose retention dates have expired	available for reuse
2	Test tape	magnetic tape used in testing a proposed system	used by programmer for individual run testing and not under library control	scratch after system has been accepted or discontinued, whichever is sooner
3			system debugging test data	
4			system acceptance test data	
5	Program tape or disk pack	tapes (disk packs) containing sequence of instructions required to accomplish the processing of data or solving a problem	Updated	scratch after 3rd update
6			the last update of specific EDP application used in a terminated system	scratch after agency has exhausted its use of the tape
7			required in Audit Trail	scratch in accordance with GAO guide lines for specific functional application

	File designation	Consisting of	Which are	Then
8	Raw data input	magnetic tapes containing data abstracted from source documents or other media and entered into the system for the first time	used for general input for update with existing program and are required to support reconstruction of master file	scratch 1st generation data upon successful completion of 4th processing machine pass
9			not required to support reconstruction of master file and/or used as input for a one-time study or survey	scratch after raw data is processed into final data and proved to be satisfactory
10			officially designated to replace or serve as the basic source data in lieu of the "hard copy" or other input source document	scratch in accordance with instructions applicable to the "hard copy" or other files documenting the same process, transaction or case

	File Designation	Consisting of	Which are	Then
11	Working tape Input/Output	magnetic tape containing output or control within or from one run to a sub- sequent run which manipulate, sort and/or move data thru the systems. Includes checkpoint, edit, correction, reject list, unmatched data eliminating error, rerun tapes	used in an updated system	scratch after subsequent magnetic tapes which contain the accepted detail data have been created and proven to be satisfactory
12			used in a one time study or survey	scratch after master data tape has been proved satisfactory
13	Valid Transaction	magnetic tapes containing valid file of items used with a Master data tape input file for creation of Master data tape output file	partially valid transaction after all outstanding items are liqui- dated from current status tapes	scratch after creation of 4th cycle
14			valid transaction after cumulative final Master tape is prepared and determined success- ful and there is no necessity for statistical analysis	scratch after creation of 4th cycle
15			used in additional statistical analysis	disposition by individual agency authorizaton *

\* Standard Form 115

	File Designation	Consisting of	Which are	Then
16	Information retrieval system master reference	magnetic media containing data created by the merging of prior master file with valid transaction data to create a new master file (including the security copy tape of data on disk packs)	a cumulative index to scientific and technical publications; bibliographic and other non record material	scratch after creation of 4th cycle
17			an index to record material such as correspondence; legal hearings and decisions; patents, trademarks; and record copy of publications	disposition by individual agency authorization *
18	Federal loan and grant program master file	magnetic media containing data created by the merging of prior master file with valid transaction data to create a new master file (initial data includes excerpts from forms placed in case files)	cumulative data of funds made available through Federally supported loan and grant programs	scratch after creation of 4th cycle
19			non cumulative periodic file of status of Federal loan and grant activity	disposition by individual agency authorization *
20	"Housekeeping systems: master data file	magnetic media containing data for such "Housekeeping systems" as fiscal accountability, supply management, payroll administration	not required for General Accounting Office site audit	scratch in accordance with standards applicable to the equivalent "hard copy" records
21			required for General Accounting Office site audit	scratch in accordance with General Accounting Office requirements

\* Standard Form 115

	File Designation	Consisting of	Which are	Then
22	Economic statistics Master file	magnetic media containing data created by the merging of prior master file with valid transaction data to create a new master file	cumulative data such as status of banks and insurance institutions; production, consumption and monetary status of industry and agriculture; value of foreign commerce and other economic indicators construction of houses and buildings; motor, rail and air travel; communications including broadcasting, telephone and telegraph	scratch after creation of 4th cycle
23			noncumulative; used to prepare reports covering a limited period of time	disposition by individual agency authorization *
24			noncumulative recurring periodic surveys including wholesale and consumer price indexes; annual industry; housing vacancy and other economic indicators	disposition not authorized
25			noncumulative economic census taken during five year intervals	disposition not authorized

\* Standard Form 115

	File Designation	Consisting of	Which are	Then
26	Social statistics Master file	magnetic media containing data created by the merging of prior master file with valid transaction data to create a new master file	cumulative social and demographic data such as births, deaths, and marriages; income taxes paid; social security accounts; employment information; law enforcement, crime and civil disturbance, and other social indicators	scratch after creation of 4th cycle
27			noncumulative; used to prepare reports covering a limited period of time	disposition by individual agency authorization *
28			noncumulative recurring periodic surveys including current population statistics; annual industry; housing vacancy; voter participation; statistics of income sample.	disposition not authorized
29			noncumulative demographic censuses	disposition not authorized

\* Standard Form 115



	File Designation	Consisting of	Which are	Then
30	Natural Resources Master file	continuously updated magnetic media containing data created by the merging of prior master file with valid transaction data to create a new master file	cumulative data on characteristics, use and ownership of natural resources such as land titles, water, mineral and timber resources	scratch after creation of 4th cycle
31			noncumulative; used to prepare reports covering a limited period of time	disposition by individual agency authorization *
32	Longitudinal studies Master data file	magnetic tape containing data recorded over time from one or more sources	a series of observations relating to individual units (persons, places, things)	disposition not authorized

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	File Designation	Consisting of	Which are	Then
33	Scientific data files	magnetic media source data recordings received from experimental sensor instruments for scientific measurements such as outer space orbiting spacecraft, oceanographic and geophysical phenomena and medical research (including analog tape)	converted to raw data digital magnetic tape media	scratch after meaningful data has been analyzed
34			not converted or converted only in part to raw data digital magnetic tape media	scratch after determination has been made that the data will not be converted to raw data digital magnetic tape media
35		magnetic media containing data created either from analog magnetic tape or recorded directly on magnetic digital tape for scientific measurements of astronomic, outer space, oceanographic phenomena; air and water quality, and medical research measurements	held in national data centers	disposition not authorized
36			not duplicated in national data centers	disposition by individual agency authorization *
37			duplicated in national data centers	scratch after determination is made that data is not required outside of the data centers
38			not calibrated or validated	scratch after subsequent magnetic tapes containing the accepted data have been created and proven to be satisfactory

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	File Designation	Consisting of	Which are	Then
39	Summary data file	magnetic tape containing aggregates of individual observations from valid transaction or master data file which are disaggregates of published data	substantially unpublished such as tapes containing data that are disclosure free	disposition by individual agency authorization *
40	Publication tape	magnetic tape containing source output data extracted from the system (without destroying the source tapes)	reproduced and disseminated as a publication or used for reproducing a printed publication	record copy not authorized for disposal
41	Print tape		used for producing required printouts of tabulations, ledgers, tables, registers and reports	scratch after output has been released and approved
42	Reformatted data file	magnetic tape containing essentially duplicate data from the master data file but which is created for use with other computer hardware systems	created for the specific purpose of information interchange	disposition as provided for master data tape
43			of specific application for agency computer hardware systems	scratch when determination is made that such format is unnecessary

\* Standard Form 115

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	File Designation	Consisting of	Which are	Then
44	Security back up file	magnetic tape which is identical in format to master tape retained as security in case master tape is damaged or inadvertently erased	updated	scratch after creation of 4th cycle
45			a one time study or survey	scratch or retain in accordance with standards for scratching of corresponding master file
46	Other agency files	magnetic tape created by other agencies	not altered substantially by the receiving agency	scratch after determination is made that retention of the data is no longer necessary

Part IV ADP Punched Card and Paper Tape

File Designation	Consisting of	Which are	Then
1 ADP program card files	punched cards containing common language source program data (source deck)	processed with a processor or utility program to produce a machine coded object program	dispose of individual cards when replacement by new ones. destroy program deck after program has been removed from system
2	machine punched cards containing coded machine language instructions arranged in proper sequence (object deck)	read into computer memory before running a program to cause the computer to perform data processing functions	destroy after successful completion of a program revision or after related program has been removed from system
3	prepunched utility or processor program card decks furnished by computer manufacturers (systems subroutines or supplemental programs written by agency programmers)	provided to assist in computer operation "housekeeping" functions	destroy after receipt and successful use of new cards from the manufacturer or programmer, or 1 year after discontinuance of program or system
4	job stream (job stack, job control) card decks	used to activate program processing modules performing a data processing job	destroy individual cards or sets of cards when replaced by new cards and when necessary changes (if any) have been made to appropriate data processing manual

	File Designation	Consisting of	Which are	Then
5	ADP program control cards	punched cards containing data for program control generated by the producer and/or user	pertinent to a specific run or cycle	destroy individual cards or sets of cards when replaced by new cards and when necessary changes (if any) have been made to appropriate data processing manual
6			for repetitive use and are updated by ADP and/or user	dispose of individual cards after replacement by new cards destroy control deck 1 year after program has been removed from system, or after system has been discontinued
7	ADP source data cards (or paper tape as applicable)	punched cards or paper tape containing data abstracted from source documents and used for conversion to magnetic tape or processing on (EAM) electric accounting machine equipment created after January 1, 1970	retained by ADP operational elements as backup to magnetic tape	dispose after machine pass
8			EAM output listings and reports	dispose after 180 days if used in processing without being converted to magnetic tape
9			on paper tape	destroy after verification of data on related magnetic tape
10		punched cards that have source data entered directly on them; with film inserts; with written information	source documents	dispose of in accordance with instructions applicable to non-card (hard copy) files documenting same transaction or case